

U. S. PLANT PATENT APPLICATION OF

HARRY G. J. VERDUIN

FOR: ASTILBE PLANT NAMED

‘RHYTHM AND BEAT’

VERDUIN, Harry G. J.

TITLE: ASTILBE PLANT NAMED 'RHYTHM AND BEAT'

APPLICANT: HARRY G. J. VERDUIN

BOTANICAL CLASSIFICATION/CULTIVAR DESIGNATION:

Astilbe hybrida cultivar Rhythm and Beat

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BACKGROUND OF THE INVENTION

The present Invention relates to a new and distinct cultivar of Astilbe plant, botanically known as *Astilbe hybrida*, and hereinafter referred to by the name 'Rhythm and Beat'.

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The new Astilbe is a product of a planned breeding program conducted by the Inventor in Heemskerk, The Netherlands. The objective of the breeding program is to develop new compact and fast-growing Astilbe cultivars.

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The new Astilbe originated from a pollination made by the Inventor of two unidentified *Astilbe hybrida* selections, not patented. The new Astilbe was discovered and selected as a single flowering plant by the Inventor in a controlled environment in Heemskerk, The Netherlands in 1995 from the resultant progeny of the pollination. The new Astilbe was selected on the basis of its rapid growth rate and red purple-colored flowers.

Asexual reproduction of the new cultivar by divisions taken at Heemskerk, The Netherlands, has shown that the unique features of this new Astilbe are stable and reproduced true to type in successive generations.

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SUMMARY OF THE INVENTION

Plants of the cultivar Rhythm and Beat have not been observed under all possible environmental conditions. The phenotype may vary somewhat with variations in environment such as temperature and light intensity without, however, any variance in genotype.

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The following traits have been repeatedly observed and are determined to be the unique characteristics of 'Rhythm and Beat'. These characteristics in combination distinguish 'Rhythm and Beat' as a new and distinct Astilbe cultivar:

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1. Upright, mounded and compact plant habit.
2. Rapid growth rate.
3. Freely and uniform flowering habit.
4. Red purple-colored flowers.

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Plants of the new Astilbe are most similar to plants of the parent selections. Plants of the new Astilbe differ from plants of the parent selections and other Astilbe cultivars known to the Inventor in inflorescence shape, plant height and flower color.

BRIEF DESCRIPTION OF THE PHOTOGRAPHS

The accompanying colored photographs illustrate the overall appearance of the new cultivar, showing the colors as true as it is reasonably possible to obtain in colored reproductions of this type.

5 Colors in the photographs may differ slightly from the color values cited in the detailed botanical description which accurately describe the actual colors of the new Astilbe. The photograph at the top of the sheet comprises a side perspective view of a typical flowering plant of 'Rhythm and Beat' grown in a container. The photograph at the bottom of the

10 sheet is a close-up view of a typical inflorescence and leaves of 'Rhythm and Beat'.

DETAILED BOTANICAL DESCRIPTION

Plants shown in the aforementioned photographs and used in the following description were grown in containers under conditions which

15 closely approximate commercial production conditions during the spring and summer in an outdoor nursery in Heemskerk, The Netherlands. Plants in the photographs and those used for the description were about one year old when the photographs and description were taken. In the following description, color references are made to the Royal

20 Horticultural Society Colour Chart, 1995 Edition, except where general terms of ordinary dictionary significance are used.

BOTANICAL CLASSIFICATION:

Astilbe hybrida cultivar Rhythm and Beat.

PARENTAGE:

5 Female, or seed, parent: Unidentified *Astilbe hybrida* selection,
not patented.

Male, or pollen, parent: Unidentified *Astilbe hybrida* selection, not
patented.

PROPAGATION:

10 Type: By divisions.
Time to rooting: About one month at 18°C.
Root description: Fine.

PLANT DESCRIPTION:

15 Form: Perennial. Upright, mounded and compact plant habit;
inverted triangle. Flowering stems and leaves arise from the roots;
dense and bushy plant habit; moderately vigorous growth habit.
Freely flowering with numerous flowers on numerous branched
panicles.

Growth rate: Rapid; from divisions, about 20 weeks are required
to produce fully-grown flowering plants in 17-cm containers.

20 Plant height: About 85 cm.
Plant width: About 60 cm.

Stem description:

Length: About 50 cm.

Internode length: About 8 cm.

Texture: Sparsely pubescent.

5 Color: 173B.

Foliage description:

Arrangement: Alternate; bi-ternately compound.

Leaf length (including petiole): About 45 cm.

Leaf width: About 30 cm.

10 Leaflet length: About 9 cm.

Leaflet width: About 4.5 cm.

Leaflet shape: Ovate to elliptic.

Leaflet apex: Acuminate to acute.

Leaflet base: Cuneate to oblique.

15 Leaflet margin: Serrate, occasionally doubly serrate.

Leaflet texture, upper and lower surfaces: Sparsely pubescent.

Leaflet venation pattern: Pinnate.

Leaflet color:

20 Developing and fully expanded foliage, upper surface: 137A; venation, 144B.

Developing and fully expanded foliage, lower surface: 138B; venation, 145C.

At leaflet and petiole attachment, upper and lower surfaces: 185B.

- 5 Petiole length: About 18 cm.
 Petiole diameter: About 2.5 mm.
 Petiole texture, upper and lower surfaces: Smooth, glabrous.
 Petiole color, upper surface: 150C.
 Petiole color, lower surface: 145C.

10 FLOWER DESCRIPTION:

Flower arrangement and shape: Numerous single flowers arranged in branched panicles; flowers face mostly outwardly. Freely and uniformly flowering habit; about 1,000 flowers and flower buds per plant.

- 15 Natural flowering season: Continuous flowering during the early summer in The Netherlands.

Flower longevity on the plant: Individual flowers last about three weeks on the plant and about one week as a cut flower. Flowers persistent.

- 20 Fragrance: Faint musty odor, not unpleasant.

Flower buds:

Length: About 2 mm.

Diameter: About 1.8 mm.

Shape: Ovate to orbicular.

5 Color: 64B.

Flowers:

Diameter: About 4 mm.

Depth (height): About 2 mm.

Petals:

10 Quantity per flower: Five.

Length: About 4 mm.

Width: About 1.5 mm.

Shape: Ligulate to linear.

Apex: Obtuse.

15 Margin: Entire.

Texture, upper and lower surfaces: Smooth, glabrous.

Color:

When opening and fully opened, upper surface: 63B.

When opening and fully opened, lower surface: 63B.

20 Sepals:

Quantity per flower: Five.

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- Calyx length: About 5 mm.
Calyx width: About 6 mm.
Shape: Ovate.
Apex: Obtuse.
- 5 Margin: Entire.
Texture, upper and lower surfaces: Smooth, glabrous.
Color, upper and lower surfaces: 157D.
- Pedicels:
Length: About 1 mm.
- 10 Diameter: Less than 1 mm.
Color: 173B.
- Reproductive organs:
Stamens:
Quantity per flower: About ten.
- 15 Anther attachment: Basifixed.
Anther length: Less than 0.5 mm.
Anther color: Creamy white to light gray.
Pollen amount: Sparse.
Pollen color: 11C.
- 20 Pistils:
Quantity per flower: Two.

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Pistil length: About 2 mm.

Stigma shape: Club-shaped.

Stigma color: Close to 188B.

Style length: About 1.5 mm.

5 Style color: Close to 188B.

Ovary color: Close to 188B.

Seed:

Length: Less than 0.5 mm.

Diameter: Less than 0.5 mm.

10 Color: Light brown.

DISEASE/PEST RESISTANCE:

Plants of the new Astilbe have not been noted to be resistant to pathogens and pests common to Astilbe.